

REMARKS

Favorable reconsideration of this application is requested in view of the above amendments and the following remarks. Claims 14, 18 and 26 have been amended to address formal issues. Claim 50 has been amended and amendments to that claim are supported by at least Figures 2 and 3 and the description at page 5 of the present application. Claim 41 is canceled without prejudice to or disclaimer of the subject matter recited therein. New claims 51-63 have been added. Claim 51 includes the limitations formerly recited in claim 50. The limitations of claim 52-60 are supported by original claims 1-11 and 14. The limitations of claims 61-63 are supported by original claims 1, 4, 12, 13 and 18, Figures 2 and 3, and the description of those Figures in the present specification. Claims 12-29, 32, 33, 36-40, and 42-63 are pending, with claims 12, 50, 52 and 61 being independent. No new matter has been added

Objections and § 112 Rejections

The drawings were objected to under 37 CFR 1.83(a). Claim 41 has been canceled, rendering this objection moot.

Claims 18 and 26 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite. Claims 18 and 26 have been amended and are now definite.

§ 102 Rejections

Claims 12, 13, 18, 24, 26, 27, 32, 38, 39, 42, 46, 48 and 49 were rejected under 35 U.S.C. §102(b) as being unpatentable over Sakai (U.S. 5,486,018). Applicant respectfully traverses this rejection.

Sakai discloses a vehicle suspension system with reference to Figures 14-17 of that reference that is similar in all respects to the embodiment shown in Figures 1-3 of that reference with exception of a flow control device 251. Both embodiments include right and left shock absorbers 102 each having a piston 105 with a check valve 108 that controls fluid flow into a lower chamber 107. The pistons have upper chambers 106 references as P1 and P2 in Figure 17. Each piston 102 is in fluid communication with a chamber of an accumulator 115. Pistons 122 of the accumulator are fixed together so that they move in unison.

The accumulator 115 provides a reservoir of fluid that the shock absorbers 102 can draw from or pass fluid to as the piston 105 extends and retracts. A flow control 117 (Figures 1-3 of Sakai) and a more complicated flow control device 251 (Figures 14-17 of Sakai) function to direct make up fluid to or collect excess fluid from the shock absorbers depending on the forces applied to each shock absorber. These applied forces may affect the direction of motion of the pistons 122 in the reservoir 115 thus affecting the flow of fluid to or from the chambers 106 (P1, P2). Sakai describes at col. 13 to col. 14 some scenarios in which forces are applied to the shock absorbers 102 in the same direction or in opposite directions. In neither of these scenarios or anywhere else does Sakai disclose that movement of a piston in one shock absorber causes the piston in the other shock absorber to move. Therefore, Sakai fails to disclose that "said first and second shock absorbers are motively linked with one another whereby when said first main piston is moved toward said retracted position, said second main piston is caused to move toward said retracted position," as required by claim 12. The accumulator 115 and flow controllers 117, 251 disclosed by Sakai may provide an indirect fluid coupling of the shock absorbers 106, however, these features only provide or retain fluid upon demand by one shock absorber or the other. Movement of one piston of one shock absorber does not force the piston of the other shock absorber in any given direction.

Sakai also fails to disclose that moving a piston of one shock causes the piston of the other shock to move in the same direction. Sakai discloses at col. 9 a scenario in which both pistons move in the same direction, but only when wheels associated with each shock absorber encounter an obstruction in the road of equal magnitude at the same time. Sakai fails to disclose that both piston move when only one shock absorber encounters a force. Therefore, Sakai fails to disclose that "said first and second shock absorbers are motively linked with one another whereby when said first main piston is moved toward said retracted position, said second main piston is caused to move toward said retracted position" or that "when said first main piston is moved towards said retracted position, said volume of said first hydraulic chamber is decreased, whereby said volume of said second hydraulic chamber is increased, whereby said second main piston moves toward said retracted position," as required by claim 12 and the claims that depend from it.

Claim 50 was rejected under 35 U.S.C. §102(b) as being unpatentable over Sakai (U.S. 5,486,018). Applicant respectfully traverses this rejection.

As discussed above, Sakai fails to disclose that movement of a piston in one shock absorber cause the piston in the other shock absorber to move in the same direction. Therefore, Sakai fails to disclose that "said first and second hydraulic chambers are in fluid communication with one another whereby when said first main piston is moved toward said retracted position, said second main piston is caused to move toward said retracted position," as required by claim 50.

Sakai also fails to disclose a "separator piston being axially spaced apart from said second main piston and defining second and third hydraulic chambers within said second hydraulic shock absorber," as required by claim 50. Sakai discloses only a single piston in each shock absorber 102. Therefore, Sakai fails to disclose every limitation of claim 50 for this additional reason.

§ 103 Rejections

Claim 33 was rejected under 35 U.S.C. §103(a) as being unpatentable over Sakai in view of Supalla (U.S. 4,153,237). Applicant respectfully traverses this rejection.

As discussed above, Sakai fails to disclose every limitation of claim 12. Supalla fails to remedy the deficiencies of Sakai as it relates to claim 12. Therefore, claim 33 is allowable for at least the reason it is dependent upon an allowable base claim. Applicant does not concede the correctness of this rejection.

Claims 40 and 41 were rejected under 35 U.S.C. §103(a) as being unpatentable over Sakai in view of Lillbacka (U.S. 6,253,867). Applicant respectfully traverses this rejection.

As discussed above, Sakai fails to disclose every limitation of claim 12. Lillbacka fails to remedy the deficiencies of Sakai as it relates to claim 12. Therefore, claims 40 and 41 are allowable for at least the reason they are dependent upon an allowable base claim. Applicant does not concede the correctness of this rejection.

Claims 43 and 47 were rejected under 35 U.S.C. §103(a) as being unpatentable over Sakai in view of Estes (U.S. 3,879,044). Applicant respectfully traverses this rejection.

As discussed above, Sakai fails to disclose every limitation of claim 12. Estes fails to remedy the deficiencies of Sakai as it relates to claim 12. Therefore, claims 43 and 47 are allowable for at least the reason they are dependent upon an allowable base claim. Applicant does not concede the correctness of this rejection.

New Claims

New claim 51 has been added as a dependent claim to claim 50. Applicant submits that new claim 51 is allowable for at least the reason it is dependent upon an allowable base claim.

New claims 52-60 are directed to a vehicle suspension system that includes some of the adjustor limitations of claim 14 and the intervening claims between original claim 1 and claim 14. Applicant submits that the prior art of record fails to disclose a suspension system that includes all of the adjustor limitations of claim 52. Therefore, claim 52 and the claims that depend from it are in condition for allowance.

New claims 61-63 are directed to a vehicle suspension system that includes some of the remote reservoir limitations of claim 18 and the intervening claims between original claim 1 and claim 18. None of the prior art of record disclose a vehicle suspension system having the remote reservoir limitations of claim 61. Therefore, claim 61 and the claims that depend from them are in condition for allowance.

Claims 52 and 61 each required that "said first and second shock absorbers are motively linked with one another whereby when said first main piston is moved toward said retracted position, said second main piston is caused to move toward said retracted position," which limitation is not disclosed by the prior art of record, as discussed above. Therefore, claims 52-63 are allowable for this additional reason.

Conclusion


Applicant thanks the Examiner for the indication of allowable subject matter in claims 14-17, 19-23, 25, 28,29,36, 37, 44, and 45.

In view of the above, Applicant requests favorable reconsideration in the form of a Notice of Allowance. If a phone conference would be helpful in resolving any issues related to this matter, please contact Applicant's attorney listed below at 612.371.5387.

Respectfully submitted,

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